In the Claims

1. (currently amended) A coating composition comprising

a1) a physically drying film forming binder resin or resins;

a2) a thermally cross linking film forming binder resin or binder resins;

a3) a radiation curable film forming binder resin or binder resins;

a4) an autoxidatively drying film forming binder resin or resins; or

a5) a combination of binder resins with at least two different crosslinking mechanisms~~machanisms~~ selected from a1), a2), a3) or a4);

b) a polymer or copolymer levelling agent of formula (I) $In-[(M)_x-(E)_y]_n$ (I) obtained by nitroxyl mediated controlled free radical polymerisation wherein

In is the initiator fragment starting the polymerisation reaction;

M is at least one monomer selected from the group consisting of acrylic acid, methacrylic acid, acrylic acid (C_1-C_{22})alkyl esters, acrylic acid (C_1-C_{22})hydroxyalkyl esters, methacrylic acid (C_1-C_{22})alkyl esters, methacrylic acid (C_1-C_{22})hydroxyalkyl esters, acrylic acid (C_1-C_{22})alkyl esters or methacrylic acid (C_1-C_{22})alkyl esters which are substituted by amino, (C_1-C_{22})alkylamino, (C_1-C_{22})dialkylamino, $-SO_3H$, epoxy, fluoro, perfluoro or siloxane groups, styrene, substituted styrene, acrylamide and methacrylamide, N-mono(C_1-C_{22})alkyl acrylamide, N,N-di(C_1-C_{22})alkyl acrylamide, and a multifunctional monomer with two or more ethylenically unsaturated bonds;
provided that the amount of unsubstituted acrylic acid (C_1-C_{22})alkyl esters or/and methacrylic acid (C_1-C_{22})alkyl esters is more than 30 % by weight based on the weight of the total monomer mixture;

E is a group bearing at least one stable free nitroxyl radical, which is bound via the oxygen atom to the polymer or copolymer; or a group which results from a substitution or elimination reaction of the attached stable free nitroxyl radical;

x is the total number of monomer units, which is a number between 5 and 5000;

y is a number 1 or greater than 1 indicating the average number of end groups E attached to the monomer sequence $(M)_x$;

n is a number from 1 to 20; and

c) optionally water or/and one or more organic solvents.

2. (original) A coating composition according to claim **1** comprising

a2) a thermally cross linking film forming binder resin or binder resins; or

a3) a radiation curable film forming binder resin or binder resins.

3. (original) A coating composition according to claim **1** comprising

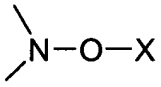
a2) a thermally cross linking film forming binder resin or binder resins.

4. (original) A coating composition according to claim **1** comprising

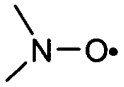
a2) a thermally cross linking film forming binder resin or binder resins without water and organic solvent, which is in the form of a solid powder.

5. (original) A coating composition according to claim **1** wherein the polymer or copolymer levelling agent of formula (I), is obtained by

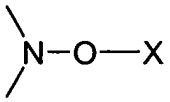
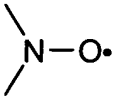
b1) polymerization in the presence of an alkoxyamine initiator/regulator having the structural element

 ; or by

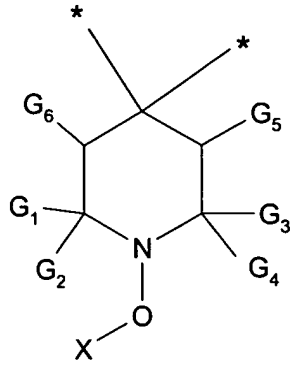
b2) polymerization in the presence of a stable nitroxyl free radical having the structural element

 and a radical initiator.

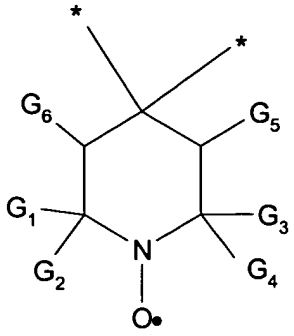
6. (original) A coating composition according to claim **5** wherein the structural element

 is a structural element of formula (II) and the structural element  is a

structural element of formula (II')



(II),



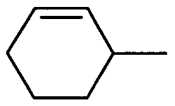
(II'),

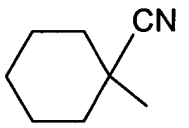
wherein

G_1, G_2, G_3, G_4 are independently C_1-C_6alkyl or G_1 and G_2 or G_3 and G_4, or G_1 and G_2 and G_3 and G_4 together form a C_5-C_{12}cycloalkyl group;

G_5, G_6 independently are H, C_1-C_{18}alkyl, phenyl, naphthyl or a group $COOC_1$-C_{18}alkyl;

X is selected from the group consisting of

-CH_2-phenyl, CH_3CH-phenyl, $(CH_3)_2C$-phenyl, $(C_5$-C_6cycloalkyl$)_2CCN$, $(CH_3)_2CCN$,  ,

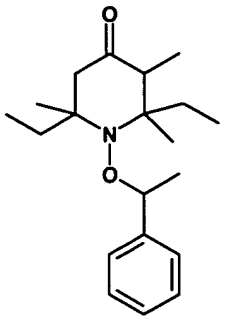


, -$CH_2CH=CH_2$, CH_3CH-$CH=CH_2$ (C_1-C_4alkyl)CR_{20}-C(O)-phenyl, (C_1-C_4)alkyl-CR_{20}-C(O)-(C_1-C_4)alkoxy, (C_1-C_4)alkyl-CR_{20}-C(O)-(C_1-C_4)alkyl, (C_1-C_4)alkyl-CR_{20}-C(O)-N-di(C_1-C_4)alkyl, (C_1-C_4)alkyl-CR_{20}-C(O)-NH(C_1-C_4)alkyl, (C_1-C_4)alkyl-CR_{20}-C(O)-NH_2, wherein

R_{20} is hydrogen or (C_1-C_4)alkyl and

* denotes a valence.

7. (original) A coating composition according to claim **6** wherein the structural element of formula (II) is a compound of formula (O1)



(O1) .

8. (original) A coating composition according to claim **1** wherein the levelling agent, component b), has a polydispersity of between 1.0 and 2.0.

9. (original) A coating composition according to claim **1** wherein the levelling agent, component b), has a glass transition temperature between 20° C and 200° C.

10. (currently amended) A coating composition according to claim **1** wherein the levelling agent, component b), is composed of at least 30 % by weight of tert**[[.]]**-butylacrylate and/or tert**[[.]]** -butylmethacrylate, based on the weight of total monomers.

11. (currently amended) A coating composition according to claim **1** wherein the levelling agent, component b), is a linear polymer or copolymer, where**[[**i.e.**]]** in formula (I) n is 1.

12. (original) A coating composition according to claim **1** wherein in formula (I), component b), y is 1.

13. (original) A coating composition according to claim **1** wherein the levelling agent, component b), has a molecular weight of between 3000 to 50000 g/mol (Dalton).

14. (currently amended) A coating composition according to claim **1** wherein the levelling agent, component b), is composed of at least 30 % by weight of tert**[[.]]**-butylacrylate and/or tert**[[.]]** -butylmethacrylate, and 0.5 to 50 % of a functional monomer which is selected from the group consisting of acrylic acid, methacrylic acid, acrylic acid (C_1-C_6)hydroxyalkyl esters, methacrylic acid (C_1-C_6)hydroxyalkyl esters, acrylic acid (C_1-C_6)alkyl esters and methacrylic acid (C_1-C_6)alkyl esters which are substituted by amino, (C_1-C_6)alkylamino, (C_1-C_6)dialkylamino, epoxy, fluoro, perfluoro or siloxane groups.

15. (currently amended) A coating composition according to claim **1** wherein the levelling agent, component b), is composed of at least 50 % by weight of tert**[[.]]**-butylacrylate and/or tert**[[.]]** -butylmethacrylate and is a solid at room temperature.

16. (original) A coating composition according to claim **1** wherein the levelling agent, component b), is present in an amount of 0.1 to 15% by weight, based on the weight of the film forming binder resin or resins, component a).

17. (original) A process for improving the levelling of a coating composition according to claim **1**, which process comprises the steps
applying the coating composition to a substrate and exposing it to thermal energy or electromagnetic radiation in order to obtain a homogenous solid coating.

18. (canceled)

19. (currently amended) A coating composition comprising
a1) a physically drying film forming binder resin or resins;
a2) a thermally cross linking film forming binder resin or binder resins;
a3) a radiation curable film forming binder resin or binder resins;

a4) an autoxidatively drying film forming binder resin or resins; or

a5) a combination of binder resins with at least two different crosslinking mechanisms~~machanisms~~ selected from a1), a2), a3) or a4);

b) a polymer or copolymer levelling agent of formula (X), prepared by atom transfer radical polymerisation $In-[(M)_x-(E)_y]_n$ (X)

wherein

In is the initiator fragment starting the polymerisation reaction;

M is at least one monomer selected from the group consisting of acrylic acid, methacrylic acid, acrylic acid (C_1-C_{22})alkyl esters, acrylic acid (C_1-C_{22})hydroxyalkyl esters, methacrylic acid (C_1-C_{22})alkyl esters, methacrylic acid (C_1-C_{22})hydroxyalkyl esters, acrylic acid (C_1-C_{22})alkyl esters or methacrylic acid (C_1-C_{22})alkyl esters which are substituted by amino, (C_1-C_{22})alkylamino, (C_1-C_{22})dialkylamino, -SO_3H, epoxy, fluoro, perfluoro or siloxane groups, styrene, substituted styrene, acrylamide and methacrylamide, N-mono(C_1-C_{22})alkyl acrylamide, N,N-di(C_1-C_{22})alkyl acrylamide, and a multifunctional monomer with two or more ethylenically unsaturated bonds;

with the proviso that the amount of tert**[[.]]**-butylacrylate is more than 30 % by weight, based on the weight of the total monomer mixture;

E is Cl, Br or a group introduced by nucleophilic substitution of Cl or Br;

x is the total number of monomer units, which is a number between 5 and 5000;

y is a number 1 or greater than 1 indicating the average number of end groups E attached to the monomer sequence $(M)_x$;

n is a number from 1 to 20; and

c) optionally water or/and one or more organic solvents.

20. (canceled)